

Research on the Impact of Consumer Preference on the Profit of Catering Enterprises

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Abstract: In recent years, with the increasing improvement of the living standards, people's requirements for catering become higher and higher, which has also led to an increasing number of factors affecting the profit of catering enterprises. However, the choice of consumers plays a dominant role. Meanwhile, Sichuan came top of the revenue of the catering industry in China. Therefore, taking Sichuan cuisine as the research object, this article understands the customer's consumption preferences by conducting the questionnaires, applies SPSS to the correlation analysis on the survey results, gets the hang of the impact of customer's consumption preferences on the customer flow or profit of catering enterprises, and proposes the research prospects. In addition, it is hoped to provide some reference for other enterprises in the same industry.

Keywords: consumer preferences; catering enterprises; enterprise profit

1. Current Situation of the Catering Industry

1.1 The epidemic has a significant impact on the catering industry in China

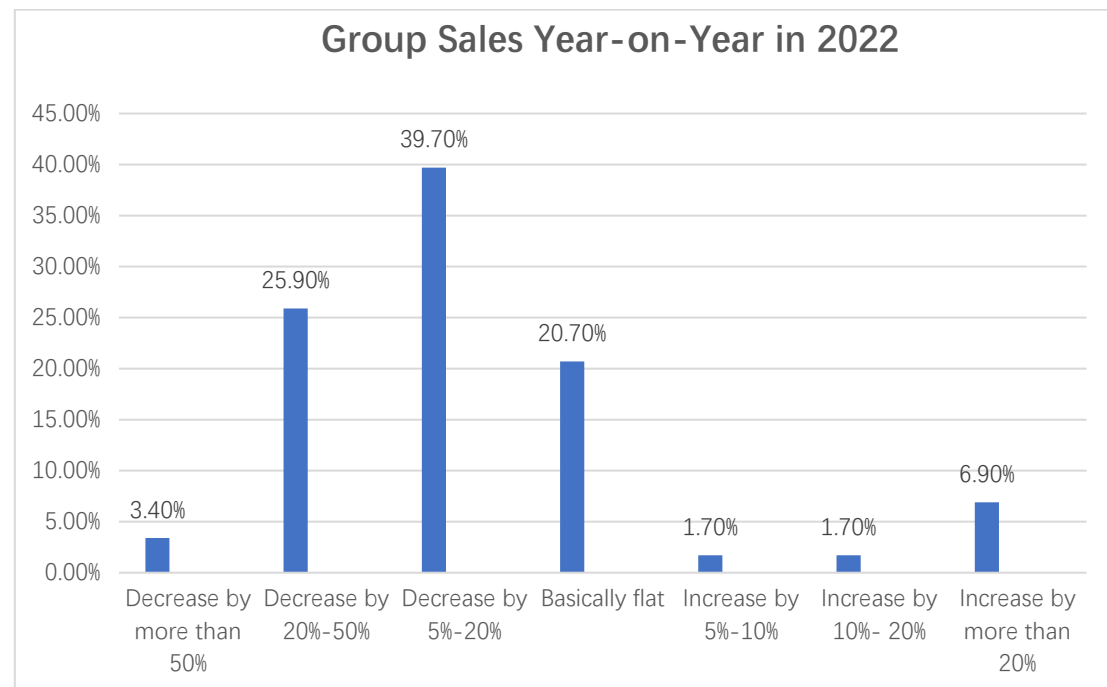


Figure 1 Group Sales Year-on-Year in 2022

In recent years, affected by the epidemic, the flow of people in the catering industry has dropped dramatically, and the money spent by the enterprises to meet the requirements of epidemic prevention and control has increased significantly. Therefore, the annual revenue and net profit of most enterprises have greatly declined year-on-year, with nearly 40% of the net profit of chain catering enterprises decreased by more than 50% compared with the previous year in the same month. As shown in Figure 1 and 2, the overall profit of the catering industry in China suggests a trend of profit decline due to the

impact of the epidemic. (Data source: China Chain Store & Franchise Association *Catering Survey Report 2022-2023*)

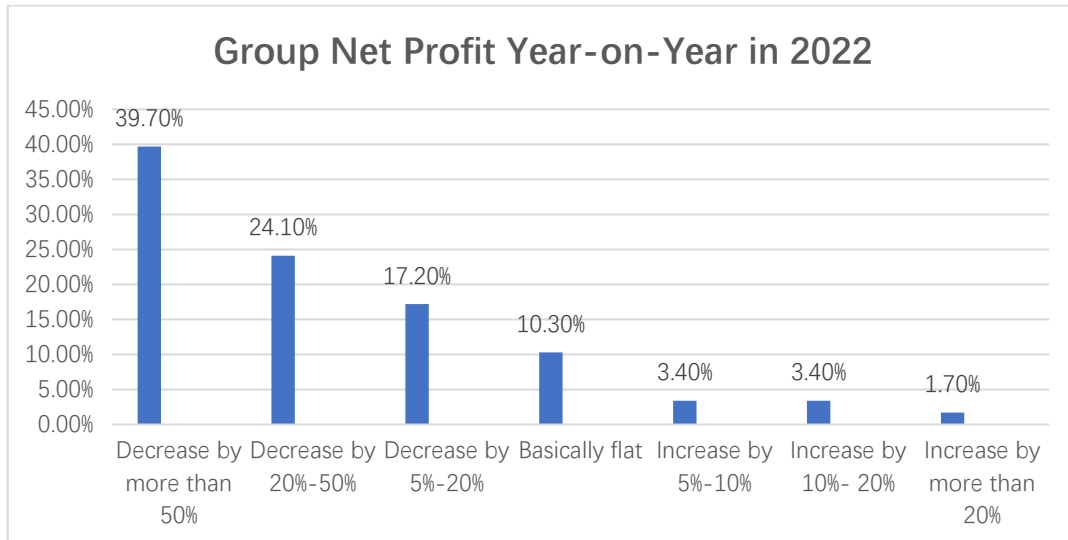


Figure 2 Group Net Profit Year-on-Year in 2022

1.2 Sichuan came top of the revenue of the catering industry in China

Sichuan cuisine is one of the eight major cuisines in China, which suggests that Sichuan cuisine is popular with the public for its unique characteristics. Sichuan people love tasty food as well. As shown in Table 1, Sichuan ranks Third in terms of revenue of catering industry in China. Therefore, Sichuan has contributed a lot to the activity of catering industry in China. (Data source: China Hospitality Association *Annual Report on China's Catering Industry 2022*)

Table 1 Revenue Report of Catering Industry in China Provincial Administrative Units (2021)

Revenue Report of Catering Industry in China Provincial Administrative Units (2021)						
No.	Province/City/District	Catering Revenue (100 million yuan)	Year-on-year Change (%)	GDP Revenue (100 million yuan)	Year-on-year Change in GDP (%)	Remarks
1	Guangdong	4760.66	15.4%	124369.67	18.0%	
2	Shandong	3828.20	22.4%	83095.90	8.3%	
3	Sichuan	3349.60	34.9%	53850.80	8.2%	
4	Jiangsu	3320.95	21.3%	116364.20	8.6%	Measured value

1.3 Hot pot and dinner account for a large proportion of China's catering forms

With a vast territory and complex tastes, the catering form in China presents a different and diverse characteristics. As shown in Figure 3 (Data source: Guosheng Securities Research Institute), the proportion of Sichuan cuisine comes top of the catering industry in China, and Sichuan cuisine has a promising development. As shown in Table 2 (Data source: China Hospitality Association *Annual Report on China's Catering Industry 2022*), the hot pot and Chinese food are the choices of most people in various catering forms. Therefore, this report mainly focuses on the hot pot and Chinese food when studying Sichuan cuisine.



Figure 3 Category Proportion of the Market of Chinese Food in 2020

Table 2 Comprehensive Operation of Main Catering Forms (2021)

Comprehensive Operation of Main Catering Forms (2021)		
Main Business Types/Statistical Items	Year-on-Year Change in Turnover	Year-on-Year Change in Number of Stores
Dinner	65.1%	56.8%
Hot Pot	40.0%	32.5%
Tea	63.4%	42.2%
Fast Food	37.2%	18.7%
Baking	104.0%	46.0%
Barbecue Skewer	40.5%	91.4%

1.4 Most of the catering industry currently operates both online and offline, with great opportunities in the takeaway food

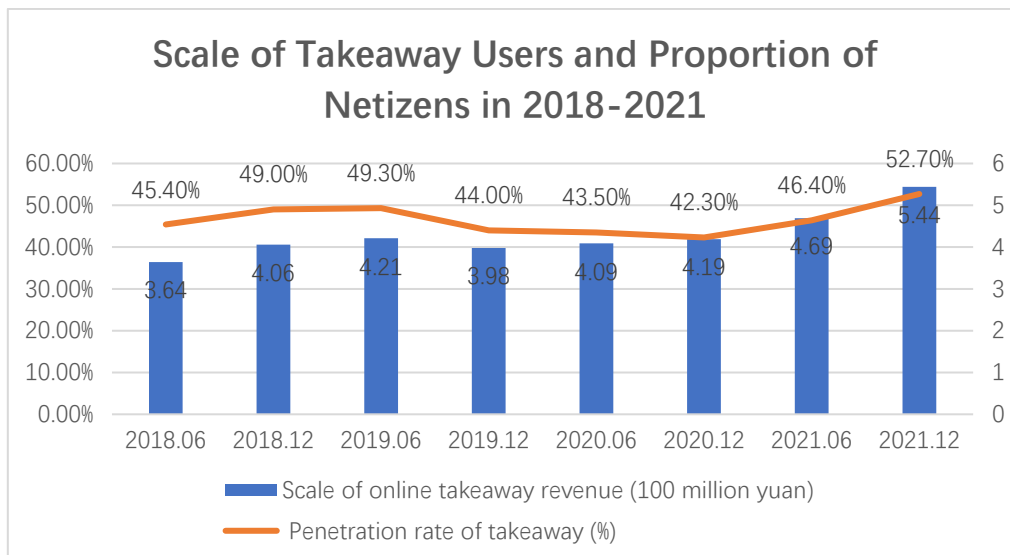


Figure 4 Scale of Takeaway Users and Proportion of Netizens in 2018-2021

Affected by the epidemic, people's consumption locations have been changing constantly, and not being allowed to dine in the restaurant has been the main trend during the epidemic, which has greatly facilitated the development of the takeaway industry. As shown in Figure 4, the scale of consumer ordering takeaway has rapidly expanded, with over 500 million online takeaway users by the end of 2021.

In addition, as dining in the restaurant suffered from a Waterloo, the takeaway has also become a very important source of income for the catering industry to overcome the difficulties, as shown in Figure 4. In 2020, the proportion of takeaway revenue in the catering revenue in China increased to 16.9%; In 2021, the proportion of revenue increased to 21.4%, with a year-on-year increase of 4.5 percentage^[1].

2. Characteristics of Catering Industry

2.1 The trend of the catering industry keeps growing

In recent years, the total amount of catering in China has shown a rising trend. In 2020, with the arising of the COVID-19, the daily development of China's catering industry was restricted to a certain extent, and the total catering revenue declined by about 15% compared with that of 2019. In 2021, with the COVID-19 brought under control, China's catering industry has recovered to the previous level before the epidemic. In 2022, due to the impact of the epidemic, the revenue of China's catering industry was 43.9 billion yuan, with a slight decrease compared to that of the same period last year. It is expected that the revenue of the catering industry will increase to 5570 billion yuan in 2023.

2.2 Wide coverage and low concentration of restaurants

Data show that the total revenue of China's largest catering enterprises only accounts for 20% of the total revenue of Chinese restaurants. And the revenue of the Top 100 catering companies in China only accounts for about 5% of the total revenue by referring to the information provided by the China Hospitality Association. The data mentioned above suggest that although China's current catering market has a considerable scale, there are few catering enterprises with great strength, and the small and medium-sized catering restaurants still take up the majority of the market.

2.3 Diversity of the catering industry

The continuous development and reform of the economy and society, and the improvement of the consumer price index cause the diversity in our lifestyle. The current catering is also different from the previous one. The combination of catering and other elements becomes the current popularity, which suggests that the integration of other fields with the catering industry is gradually transforming our catering model.

2.4 The profit of catering enterprises is generally not high

With the fast development of the society, the catering industry is also developing rapidly, but the overall catering structure and environment are not good. Therefore, the costs of labor, rental, procurement, water and electricity are increasing year by year. Nowadays, the profit of the catering industry drops gradually, which results in the average net profit of catering enterprises decreasing to less than 5%.

2.5 The professionalization, industrialization, and Internet of catering are gradually becoming evident

In recent years, the catering services are gradually changing into automation and Internetization while a new generation of information technology based on big data and network technology is increasingly being improved. They have greatly promoted the efficiency of catering work, provided good solutions to the catering problems, and facilitated the development of catering services towards standardization, scale and chain. Therefore, more other factors have an impact on the profits of the catering industry. And the consumer preference is one of the most important factors that affect the profit of the catering industry. It has a direct impact on the operating profits of the catering industry and indirectly affects other factors. Therefore, this questionnaire focuses on the impact of consumer preference on the profit of the catering industry.

3. Research and Analysis of Catering Profits

3.1 Questionnaire design for the consumer preferences and profit research in catering

This research focuses on the consumers' consumption behaviors of Sichuan cuisine (Chinese food and hot pot), analyzes the reasons behind them and finds out the corresponding solutions. By

understanding the reasons why the consumers are willing to pay or pay at a premium for Sichuan cuisine, that is, their consumption preferences, we can understand their impact on the customer flow or profit of catering enterprises. The design of this questionnaire adopts a combination of anonymous, multiple choice, and single choice methods, which are filled out by the interviewees one by one. It mainly aims at investigating the basic information of the interviewees, such as age, occupation, and so on. In addition, the content of this survey consists of four parts, including 5 basic questions, 14 general survey questions, 9 questions about Sichuan cuisine and prices, and 2 questions about the impact of dining channels and external evaluations on dining, with a total of 30 multiple choice questions^[2].

The first part is mainly about collecting the basic information of the interviewees, including gender, age, occupation, average monthly income, and hometown.

The second part is about a general survey of the consumers' consumption of Sichuan cuisine, which involves in the consumer's motivation and behavior, such as the favorite style of Chinese restaurants and hot pot restaurants, the circumstances you choose to eat hot pot, the favorite hot pot brands, and the frequency of monthly consumption at Sichuan restaurants.

The third part refers to a survey on Sichuan cuisine and its price, which involves in the consumers' choice of consumption price and taste of Sichuan cuisine, as well as their review on the dishes.

The fourth part is about the sources of consumer dining channels and the impact of external reviews on dining, such as which channels do you choose Sichuan restaurants, and whether the user's review on the app has an impact on your choice of Sichuan restaurant.

This research aims at collecting the first-hand data, including handing out and collecting of questionnaires. After clearing the original data and eliminating the invalid questionnaires, we collect the data from the valid questionnaires, briefly summarize the data, and adopt the principal components of SPSS to conduct the analysis on integrating many factors involved in the consumption of Sichuan cuisine into one or more relatively independent and comprehensive factors.

3.2 Analysis on Statistical Survey Results and SPSS Principal Components

3.2.1 Analysis on statistical results

A total of 320 valid questionnaires collected in this survey were completed online. According to the statistical results, the survey shows that the proportion of female interviewees is slightly high, accounting for 57%; 86% of interviewees are from 18 to 45; Students, workers and freelancers accounts for 95%; 86% of interviewees' average monthly income is 2,000 to 8,000 yuan; Half of the interviewees come from the southwest China, and the interviewees from different regions are relatively scattered; 62% of interviewees favour Sichuan hot pot; 69% of interviewees spend 50-200 yuan per person; 50% of interviewees favour a spacious and bright store style, while others prefer the rest; The top three Sichuan flavors preferred by the interviewees are fish flavor, spicy flavor and hot and sour flavor; 89% of interviewees tend to dine in the ordinary Chinese restaurants or distinctive Chinese restaurants; 84% of interviewees would choose mild or moderate spicy; 64% of interviewees hope to eat spicy and delicious Sichuan cuisine with better taste; 88% of interviewees consume about 50-200 yuan per person for a single hot pot; 49% of interviewees prefer to dine in spacious and bright hot pot restaurants, while 23% prefer to dine in bustling ones; 76% of interviewees favour the traditional soup base (clear oil, butter and plain); 92% of interviewees choose to eat hot pot with friends together; The top three hot pot brands preferred by most interviewees are: Haidilao, Shudaxia and Shoo Loong Kan; 62% of interviewees think the most unacceptable factor for hot pot restaurants is the high price; 70% of the interviewees dine in Sichuan restaurant for 1-3 times a month; 69% of interviewees eat Sichuan food with 2 to 5 people in a group, while 23% mention that the number is uncertain; 65% of interviewees choose Sichuan restaurant through recommendation from the relatives and friends or through the channels on the Internet; Geographical location has little impact on the interviewees' choices of Sichuan restaurants, with a relatively average distribution of options; 48% of interviewees think that the convenience of transportation will affect their choice of Sichuan restaurant; 31% of interviewees believe that the reputation of the restaurant will affect their choice of Sichuan restaurants; The top three most attractive factors of Sichuan cuisine are: the unique and spicy taste, the diversity of ingredients, and the pleasure of eating; 81% of interviewees tend to choose Sichuan restaurants with brand characteristics; More than half of the interviewees mention that in order to improve their own quality, Sichuan cuisine shall innovate in taste, take in the characteristics of other cuisines, and use the ingredients with higher quality; 71% of interviewees believe that the takeaway services for Sichuan cuisine will enable the consumer to have a better experience; 44% of interviewees believe that the user's review on APP plays a significant role in their choice of Sichuan

restaurants; 39% of interviewees believe that the review on APP has a moderate impact on their choice of Sichuan restaurants.

3.2.2 Analysis on SPSS principal component

(1) KMO value and Bartlett test

Table 3 KMO Value and Bartley Test

KMO Value and Bartley Test		
KMO Measure of Sampling Adequacy		0.757
Bartlett Test of Sphericity	Approximate chi-square	1830.553
	Freedom	91
	Significance	<0.001

KMO (Kaiser Meyer Olkin): An indicator used to compare the simple correlation coefficients and partial correlation coefficients between variables, is applied in multivariate statistical factor analysis. KMO statistics have values between 0 and 1. When the sum of the squares of the simple correlation coefficients among all variables is much larger than the sum of the squares of the partial correlation coefficients, the closer the KMO value is to 1, which means the stronger the correlation between variables, the more suitable the original variables are for factor analysis^[3]; When the sum of squares of the simple correlation coefficients between all variables is close to 0, the closer the KMO value is to 0, which means that the correlation between variables is weaker and the original variables are less suitable for factor analysis. It is generally believed that a value above 0.9 refers to very suitable; 0.8 refers to suitable; 0.7 refers to average; 0.6 refers to not suitable; Below 0.5 refers to extremely unsuitable. As shown in Table 3, in this example, the KMO is 0.757, which refers to more suitable for the factor analysis

Bartlett Test of Sphericity: used to test the correlation between variables in a correlation matrix and whether it is an identity matrix, that is, to test whether each variable is independent. It starts from the correlation coefficient matrix of variables, and the original assumption is that the correlation coefficient matrix is an identity matrix. KMO and Bartlett Test of Sphericity are conducted first before factor analysis. If the Bartlett statistic value is large and the corresponding concomitant probability value is less than the given significance level, the original hypothesis should be rejected. If the original hypothesis is rejected, it can conduct the factor analysis. If the original hypothesis is not rejected, these variables may provide some information independently and are not suitable for factor analysis^[4]. As shown in Table 3, in this example, the Bartley statistic value is 1,830.553 and the corresponding significance level is less than 0.001 (generally considered to be less than or equal to 0.05). It can be considered that there is a significant difference between the correlation coefficient matrix and the identity matrix; Combining the KMO value of 0.757, it can be seen that the original variable is suitable for the analysis on principal components.

(2) Calculation of Principal Components

The principal component analysis is now conducted on the original data, as shown in Table 4 below:

Table 4 Interpretation of Total Variance

Interpretation of Total Variance						
Component	Total	Initial Eigenvalue Variance Percentage	Cumulative Percentage	Total	Extract the Variance Percentage of the Load Square	Cumulative Percentage
1	3.712	26.511	26.511	3.712	26.511	26.511
2	1.962	14.017	40.528	1.962	14.017	40.528
3	1.417	10.119	50.647	1.417	10.119	50.647
4	1.108	7.912	58.599	1.108	7.912	58.599
5	1.070	7.644	66.203	1.070	7.644	66.203
6	0.969	6.921	73.124			
7	0.931	6.648	79.772			
8	0.775	5.539	85.311			
9	0.672	4.802	90.113			
10	0.522	3.729	93.842			
11	0.402	2.875	96.717			
12	0.284	2.027	98.744			
13	0.123	0.882	99.626			
14	0.052	0.374	100.000			

According to the calculation results, five principal components with eigenvalue greater than 1 and cumulative variance contribution rate greater than 65% are selected to reflect the original variables. From this table, it can be found that the cumulative variance percentage of the first five components has reached 66.203%, and the eigenvalue is greater than 1. Therefore, the first five components can be extracted as the main components, which include "Age", "Average monthly income", "Favorite Sichuan cuisine (hot pot/Chinese food)", "Spicy degree of the restaurant", and "Impact of geographical location". "Age" accounts for the largest proportion, 26.511%.

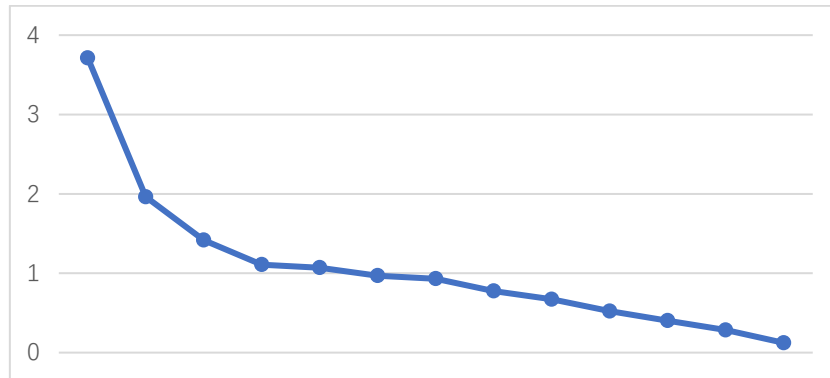


Figure 5 Scree Plot

Figure 5 shows a line chart of all principal component eigenvalues. Starting from the fifth component, the line tends to flatten out, which repeatedly suggests that it is reasonable to extract the first five of the 14 variables as principal components.

(3)Factor Loading

Table 5 Component Matrix

Component Matrix					
	1	2	3	4	5
V1	-0.077	0.094	0.282	-0.443	0.635
V2	0.411	0.665	0.072	-0.044	0.220
V3	0.301	0.689	-0.085	-0.157	0.006
V4	0.364	0.755	0.098	0.017	-0.063
V5	0.364	0.755	0.098	0.017	-0.063
V6	0.931	-0.149	0.005	0.008	0.048
V7	0.828	-0.262	-0.075	-0.070	-0.074
V8	0.917	-0.257	-0.075	-0.020	-0.009
V9	0.152	0.260	0.044	0.762	-0.067
V10	0.090	0.341	0.028	-0.094	-0.320
V11	0.023	-0.143	0.730	0.177	-0.115
V12	-0.080	-0.153	-0.389	-0.114	0.079
V13	0.026	-0.019	-0.363	0.480	0.650
V14	0.084	-0.159	0.696	0.110	0.214

As shown in Table 5, the loading in this table indicates the correlation coefficient between the principal component and the corresponding variable. The larger the value, the higher the degree of interpretation of the principal component. The four variables with high loading on the first principal component are "Range of per capita consumption", "Favorite style of Chinese restaurant", "Spicy choice", and "Impact of review APP on store selection"; The variables with higher loading in the second principal component are "Age" and "Occupation"; The variables that have a significant impact on the third principal component are "Age" and "Number of people going out to eat Sichuan cuisine"; The variables that have the greatest impact on the fourth principal component are "Favorite Sichuan cuisine (hot pot/Chinese food)", and the variables that have the highest degree of interpretation for the fifth principal component are "Age" and "Whether the takeaway service will provide the consumer with a better experience?"

3.3 Conclusion analysis

According to the analysis on the survey results of consumer preferences, it can be seen that the

interviewees tend to dine in the ordinary Chinese restaurants or distinctive Chinese restaurants (89%), and Sichuan restaurants with brand characteristics (81%). The consumers have higher intention to dine in the catering enterprises with brand characteristics, so branding will drive a chain reaction of enterprise profits; The interviewees who are middle school students, the workers with a monthly income of less than 2000, the fans of Sichuan hot pot, their per capita consumption of 50-100 yuan, and a monthly consumption frequency of 1-3 times, account for the highest proportion. It can be seen that although the students are highly sensitive to money and have a low consumption frequency, they are a consumer group with distinctive characteristics that cannot be ignored for their large base; The majority of interviewees will choose Sichuan restaurants via the Internet (65.42%), believing that the review APP has the greatest impact on choosing Sichuan restaurants (43.93%). It is obvious that the Internet technology plays a significant role in promoting Sichuan restaurants and attracting the customers; 71.34% of the interviewees believe that providing the takeaway services for Sichuan cuisine will provide the consumer with a better experience, and launching takeaway service is a profit mode of catering for adapting to the current fast-paced life.

4. Countermeasures for Improving Profit of Catering Enterprises

4.1 Creating the brand characteristics

According to the survey, people have a higher intention to dine in the restaurants with distinctive features, and the product characteristics become an important factor for improving the customer retention. With the development of society, the uniform food has little attraction for people. The necessary attraction including long history, unique taste secrets, perfect service and exquisite decoration help to promote the customer consumption. Sichuan restaurants shall create their own enterprise characteristics to attract more customers.

4.2 Customer positioning

According to the research, it can be found that different consumer groups have different consumption habits, and developing different targeted services for different consumer groups is an effective way to improve the customer retention. The per capita consumption of students is low but with a large base and easy to attract, while the consumption of worker is high but with low frequency. Enterprises shall figure out their own positioning. When taking the students as the target consumers, they shall improve the cost performance ratio, cut down the costs, and constantly innovate the products, services, or preferential modes, to meet the students' pursuit of novelty; When taking the workers as the target consumers, they shall focus on the product quality, higher-quality raw materials, premium environments, and excellent services to retain customers.

4.3 Making full use of Internet technology

Modern media, which push the brand culture, product characteristics, and other content to the consumer groups in real time, has penetrated into the consumers' daily life. It plays a significant role in establishing the brand characteristics or creating a more efficient business mode for the catering enterprises^[5]. According to the survey, most people will select Sichuan restaurants via the Internet. Therefore, promoting the brand features or providing takeaway services via the Internet can effectively improve the reputation of their products.

4.4 Launching the takeaway services

The consumers attach great importance to the geographic location. And the locations with a large flow of people have better performance, while they may increase the competition and costs. For small enterprises, launching the takeaway services is a good choice, which can effectively expand the scope of services, and most consumers are willing to accept the takeaway services.

4.5 Chain operation

As the brand effect and the current Internet technology become more and more mature, a chain operation is the best way for an enterprise to obtain more profits, which can also maximize the brand effect.

5. Conclusion

According to the analysis on the data of consumer preference, it can be known that as a consumer, people tend to choose Sichuan restaurants with quality assurance and brand characteristics^[6]. Different consumer groups have different consumption habits; in the modern society, since people are accustomed to the fast-paced life, and convenience also plays an important part in people's choice of Sichuan restaurants.

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